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MODEL 1100, 3100, 5100, 7100 AND MINI-ICS PRODUCT ADVISORY

Your Immediate Attention is Required

AC POWER SUPPLY ISSUE

October 9, 2009

ISSUE

Neutronics Inc. has been advised by its supplier of a potential problem with the AC power supply for models 1100, 3100, 5100, 7100 and Mini-ICS, shipped between October 22, 2008 and September 30, 2009. The supplier has disclosed a production rework problem, which led to a capacitor being damaged due to overheating. The failures started occurring when the circuit board was changed to being RoHS (lead-free) compliant. The failure modes are that the unit will either, turn off when running or not power up. The problem indication is; "LED's are not illuminated on display panel". Some units are configured with a fail safe fault relay that will also indicate a problem.

The capacitor evaluation revealed mechanical flexure cracks with a microscopic examination of three cross sectional samples. Ceramic capacitors with micro-cracks are susceptible to environmental contaminants such as moisture and airborne industrial chemicals. The failure mode of the capacitor is low DC resistance due to leakage. The capacitor is in the part of the circuit that monitors the power to the switching regulator integrated circuit. The low DC resistance causes the regulator to shut off the output stage of the power supply, normally intended to prevent component overheating during overload conditions.

After October 22, 2008 only two of the failures were detected during Neutronics Inc. "burn-in test", thus leading Neutronics Inc. to conclude at the time, that these failures were due to infant mortality for which the "burn-in test" was implemented. Neutronics took corrective action on September 29, 2009, when 6 power supplies were returned from the field and found to have the same capacitor problem. The problem was confirmed by the supplier October 1, 2009.

CORRECTIVE ACTION

The vendor took corrective action by changing the rework procedure to include preheating with forced hot air and replacement of soldering equipment. Neutronics will burn-in all new and returned units for a 72 hour period.

Neutronics will replace any power supply, free of charge, for the units produced between October 22, 2008 and September 30, 2009 that were shipped with the RoHS compliant power supply. These repaired units will have the Neutronics Inc. full one year warranty reinstated from the date of the service. Customers are advised to return any units in inventory for rework. Customers are requested to contact Customer Service for assistance in evaluating the implications of this Service Advisory and its impact on each specific measurement application at 610-524-8800 Ext 123 or by email at David.Wagner@NeutronicsInc.com.

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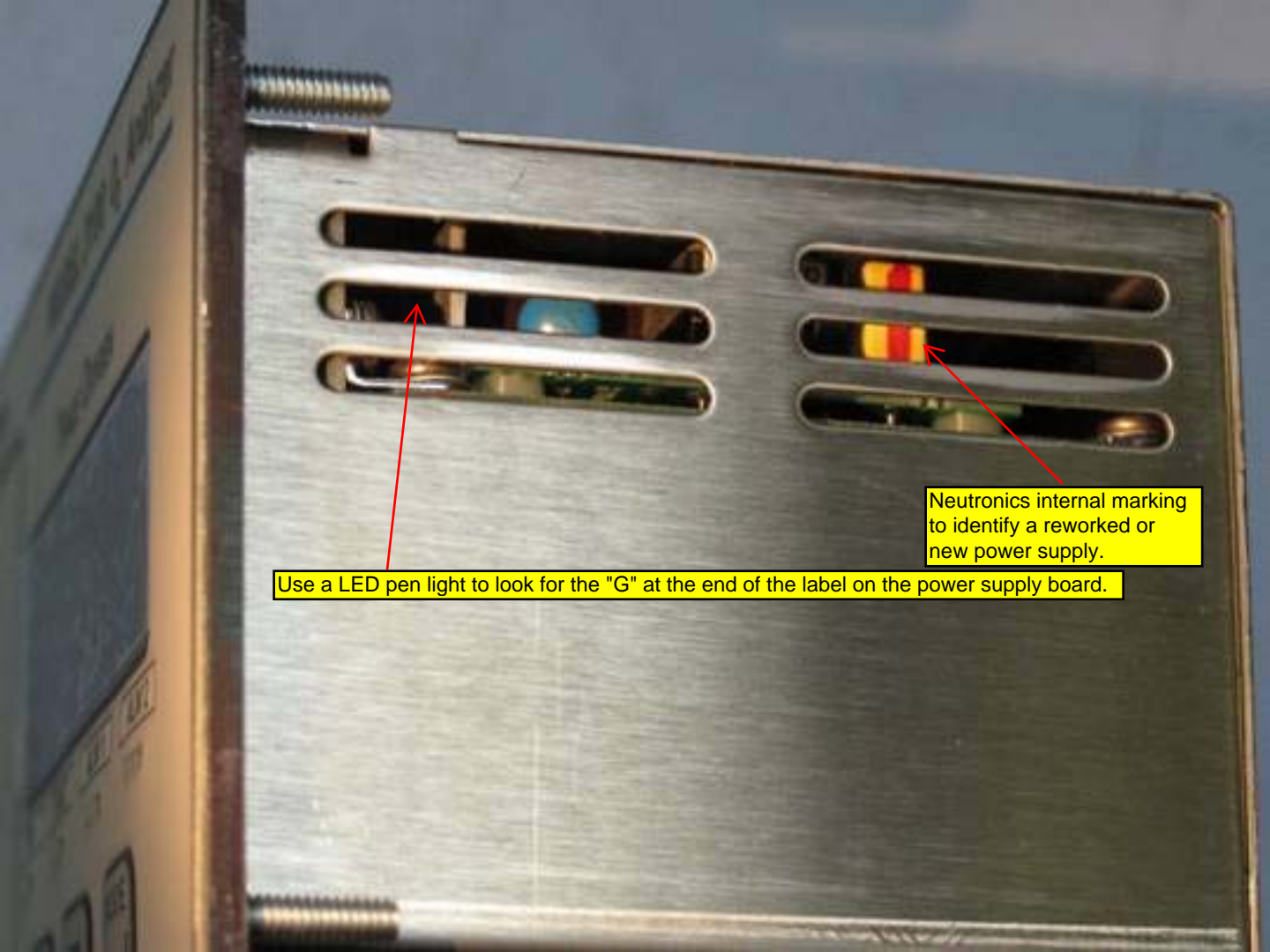
Email: info@neutronicsinc.com

FIELD INSPECTION REQUIRED TO IDENTIFY RoHS COMPLIANT POWER SUPPLY.

Neutronics recommends that customers inspect their oxygen analyzer inventory. With the use of an LED pen-light, the power supply markings can be checked. The marking is 1/2" behind the display, looking through the slots on the right side of the chassis. The lead-free circuit boards are marked "GSC-20-12G". These circuit boards are susceptible to the capacitor problem. The circuit boards marked "GSC-20-12" are not in the scope of this problem.

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Use a LED pen light to look for the "G" at the end of the label on the power supply board.

Neutronics internal marking to identify a reworked or new power supply.